Screwworm Research Laboratory
P. O. Box 986
Mission, Texas 78572

September 22, 1972

Subject: Employee Suggestion--APHIS, VS

To: Dr. A. L. Klingsporn
Acting Senior Staff Veterinarian
USDA, APHIS, VS
Federal Center Building
Hyattsville, Maryland 20782

Mr. E. A. Taylor asked our group to evaluate the employee suggestion submitted by Mr. Bill O. Beasley of Phoenix, Arizona. Certainly the employee is to be commended for his interest in the screwworm eradication program and his desire to supplement current fly control practices with a new measure which he believes would speed eradication in Arizona. Although the suggestion does not include a concrete plan for implementing the release of parasitic wasps, it implies that Veterinary Services should purchase the service offered commercially by the Arizona Bio Service Co. of Scottsdale.

Cost is not estimated in the suggestion, but if USDA funds would be required to implement this suggestion, we recommend against the release. While progress has been made in biological control in recent years, all the information available to us from entomological research conducted in the 1930's and 40's indicates that release of pupal parasites would not appreciably lower the screwworm population nor speed its elimination by sterile fly drop. If sterile fly production were lowered in order to purchase parasitic wasps, elimination of the overwintering screwworm population would probably be delayed.

Lindquist and associates at Uvalde, Texas, found in the 1930's that parasitic wasps attacked screwworms in the laboratory but release of the same species in the field did not control screwworms under outdoor conditions. The screwworm colony at Kerrville was decimated at one time by another parasitic wasp, but this natural enemy was rather easily eliminated from the colony. The information presented by Mr. Beasley is far from conclusive as it ignores the fact that the wasps could hardly be expected to control screwworms at release points (feed lots and dairies) where virtually no full grown larvae are being produced. Also, he does not explain how the wasps prevent the gravid screwworm fly that

flies in from surrounding areas from infesting cattle at the wasp release points. To us it seems more logical to assume that the low incidence of screwworms at wasp release points was the result of the excellent surveillance that is ordinarily maintained at feed lots and dairies.

Biological control measures deserve careful study and consideration, but they often do not prevent the buildup of pest insect populations. For example, releases of large numbers of laboratory-reared Spalangia muscidarum each week throughout the fly season at Lincoln, Nebraska, in 1960-62 did not satisfactorily control the stable fly and the housefly in barnyards and feed lots.

O. H. Graham
Research Entomologist

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Biological control measures deserve careful study and consideration, but they often do not prevent the buildup of pest insect populations. For example, releases of large numbers of laboratory-reared Spalangia <u>nasardarum</u> each week throughout the fly season at Lincoln, Nebraska, in 1969-82 did not satisfactorily control the stable fly and the housefly in barnyards and feed lots.

O. H. Graham
Research Entomologist

September 18, 1972

HOURRIGAN
SCHUBERT
KLINGSPORN
KNOWLES
WILLIAMS
BOGG
MATHIS
SCHEE

AIRMAIL

Mr. Bob Roberts
Box 552
Comfort, Texas 78013

Dear Mr. Roberts:

This is in reply to your letter of August 30, 1972, inquiring about the Mexico-United States Screwworm Eradication Program. In answer to your question as to what effect this program will have on screwworms in British Honduras, our opinion is that it will have little or no effect on the screwworms in British Honduras. Fly releases will be confined to Northern Mexico with the barrier zone at the Isthmus of Tehuantepec. Any activities South of this barrier zone would be part of a future activity not presently being considered.

We thank you for your interest and appreciate your concern about the screwworm program.

Sincerely,

S. C. Cartman
Staff Veterinarian
Screwworm Eradication

cc:
Dr. E. S. Cox, APHIS-VIC, Austin, Texas
Dr. J. L. Wilbur, APHIS, Hyattsville, Maryland

APHIS:VS:SCGartman:lg 9/18/72 ext. 68625

APHIS

Box 552
Comfort, Texas 78013
August 30, 1972

United States Department of Agriculture
Washington, D.C.,

Gentlemen:

According to the Associated Press, Mexico and the United States are going to cooperate in a sterile screwworm fly release program in the Tehuantepec Isthmus. I would very much appreciate your opinion as to what effect this will have on screwworms in British Honduras.

Yours very truly,

Bob Roberts

Bob Roberts